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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,454	04/24/2002	Michiel J. van Nieuwstadt	201-0830 AJL	6571

7590 07/26/2004
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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/063,454

Applicant(s)

VAN NIEUWSTADT ET AL.

Examiner

Diem Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2,3
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-8, 10-12, 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Nakayama et al. (JP 60-090931).

Regarding claims 1-6, 11, Nakayama discloses a method for regenerating a particulate filter (3) (see Figure 3) coupled to an internal combustion engine, comprising:
commencing a self-sustaining filter regeneration, monitoring whether said regeneration causes temperature of said particulate filter to become greater than a predetermined value; and in response to said monitoring, adjusting a throttle position to restrict the intake air flow rate so as to limit exothermic reaction via control of an excess oxygen amount entering said filter and prevent temperature from rising to become greater than a pre-selected value (see abstract).

Regarding claims 7, 8, 10, 12, Nakayama discloses a system comprising a diesel engine;

an electronically controlled throttle valve (45) coupled to said engine;

a diesel particulate filter (3) coupled to said engine (see Figure 3); and

a controller for commencing self-sustaining regeneration of said particulate filter, determining a desired oxygen flow, and adjusting said valve to provide said desired flow (see abstract).

Regarding claim 15, Nakayama further discloses that said controller limits said self-sustaining regeneration reaction by preventing temperature of said particulate filter from becoming greater than a predetermined value (see abstract, part constitution, lines 5-17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. (JP 60-090931) as applied to claim 7 above, in view of Ludecke et al. (US Patent 4,211,075).

Regarding claim 9, Nakayama discloses all the claimed limitations as discussed in claim 7 above, however, fails to disclose controlling particulate filter temperature based on engine speed and engine load. Ludecke teaches that it is conventional in the art, to control particulate filter temperature based on engine speed and engine load (see col. 3, lines 57-68, col. 4, lines 1+).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Ludecke in the Nakayama method, since the use thereof would have improved the efficiency of the filter regeneration.

Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. (JP 60-090931) as applied to claim 10 above, in view of Kondo et al. (US Patent 4,732,593).

Regarding claims 13, 14, Nakayama discloses all the claimed limitations as discussed in claim 10 above; however, fails to disclose that said diesel particulate filter comprises SiC or cordierite. Kondo teaches that it is conventional in the art, to utilize a diesel particulate filter comprising high temperature resistant SiC or cordierite (see col. 2, lines 67-68, col. 3, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Kondo in the Nakayama device since the use thereof would have produced a durable particulate filter.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:30 a.m. - 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number

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for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.



Diem Tran
Patent Examiner
Art unit 3748

DT
July 22, 2004



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700